

Remarks

I. Status of the Claims

Claims 1-38 are pending in the application.

Claims 1-9, 14 and 31-38 are withdrawn from consideration.

Claims 10-13, 15-25, 27 and 29 are rejected.

Claims 26, 28 and 30 are objected to.

Applicant wishes to acknowledge a telephone conversation with Examiner Farah on 11/29/04 correcting the statement on page 2 of the detailed action that claims 15-26 were rejected, rather than claims 15-25, with claim 26 being objected to.

II. Amendments

No claims are currently amended.

III. Rejection of claims under 35 USC §102.

Claims 10-13, 15-25, 27 and 29 are rejected under 35 USC §102(e) as being anticipated by Williams *et al.*, U.S. Patent Number 6,413,251B1. Williams is alleged to disclose *a method for correcting higher order aberrations of a patient's eye*, as recited in applicant's claim 10. Williams is said to teach the use of a microkeratome to make a corneal flap, as applied to claims 11 and 12. Williams' disclosure of a three-dimensional topographical measurement of the eye is alleged to include area and thickness of corneal/stromal tissue, as applied to claims 13, 23 and 24. Williams is said to disclose a method including the steps of making diagnostic measurement of the patient's eye prior to inflicting the surgical trauma, and following the wavefront information to develop the treatment, as applied to claims 15, 16, 19, 20 and 22. Claims 17 and 18 are rejected based

upon the disclosure of an ablation profile that is adjustable with respect to a prospective ablation.

Applicant respectfully traverses these rejections on the basis that they are improper. Therefore, they should be withdrawn. MPEP §2131 provides that:

a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814, F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), the identical invention must be shown in as complete detail as contained in the ... claim. Richardson v. Suzuki Motor Co., 868, F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim.

Williams, however, does not contain every element and limitation recited in applicant's claim 10, in as complete detail as is contained in the claim and arranged as recited in the claim. For example, the Examiner points to column 2, line 64 to column 3, line 23 in Williams as disclosing *a method and system for correcting higher order aberration of a patient's eye*. The recitation merely discusses several prior art approaches to problems in the state of the art identified by Williams. One of the prior art approaches is directed to expanding the mathematical equations for refraction correction to include higher order effects such as coma and spherical aberration in an attempt to reduce those higher order effects. A second approach is directed to improving schematic model eyes to include higher order aberrations and thus provide insight into how the various elements of the eye's optical system correlate to affect visual performance. Applicant respectfully submits that nothing in the cited passage discloses *a method for correcting higher order aberration of a patient's eye*, as claimed by applicant.

The Examiner then cites Williams at column 16, line 50 through column 17, line 27 as disclosing *a method and system for correcting higher order aberration of a patient's eye including obtaining diagnostic wavefront information subsequent to inflicting a required*

surgical trauma to the eye corresponding to a particular ophthalmological procedure.

Williams only discloses a real-time refractive correction procedure approach in which a wavefront sensor that is built into the refractive laser system evaluates the cornea after every (predetermined) layer (or a sequence of layers) is ablated. This evaluation is said to continue until feedback from the wavefront sensor indicates that the cornea has been modified (according to the predetermined sequence) to properly correct for aberration in the optical system of the eye. Finally, the Examiner refers to column 17, lines 28-58 as disclosing the *development of a treatment for correcting the higher order aberrations of the patient's eye based at least in part upon the subsequent wavefront information.* A close reading of that section, however, indicates that the wavefront sensor system measures the eye system aberrations and creates a 3-D contour profile and data corresponding thereto, which is input into the computer system. The computer system then divides or slices the contour profile into layers. Each layer is converted into a 1-bit Pixmap image and stored as layer data in a memory of the computer system. The surgeon then preps the patient for laser refractive surgery identified as PRK or LASIK. The “prep” that is referred to is the scraping of the eye or the cutting and lifting of the corneal flap for the respective PRK or LASIK surgical procedures. Applicant submits that the cited recitations in Williams do not expressly or inherently disclose every element and limitation in as complete detail and arrangement as recited in applicant's claim 10. The rejection is therefore improper and should be withdrawn.

The Examiner cites Williams at column 11, lines 50-52 and 58-60 as teaching that the patient's eye is subjected to a microkeratome to make a corneal flap. Williams therein states that “prepping includes using a PRK or LASIK technique...in LASIK, a flap is cut approximately 120 to 160 microns deep into the corneal stroma, and the flap is flipped back to expose the corneal stroma.” There is no disclosure, however, that *the diagnostic wavefront information is obtained prior to lifting the LASIK flap* as recited in applicant's claim 12.

Moreover, the cited passage does not remedy the defects of Williams associated with applicant's claim 10, as discussed immediately above. The rejection of claims 11 and 12, therefore, is improper and should be withdrawn.

In regards to applicant's claims 13, 23 and 24, the Examiner states that Williams develops a three-dimensional topographical measurement of the eye that includes area and thickness of corneal/stromal tissue. The Examiner's mere general reference to such a measurement completely fails to disclose *developing a refractive treatment for correcting higher order aberrations of a patient's eye in consideration of a biodynamical effect in response to a prerequisite trauma* (claim 13); *obtaining a different diagnostic measurement indicative of a characteristic of the epithelium of the eye, and using this measurement information to adjust the developed treatment to compensate for a biomechanical effect of the eye* (claim 23); or *obtaining epithelial profile or epithelial thickness measurements to adjust the developed treatment to compensate for a biomechanical effect of the eye* (claim 24). Without express or inherent disclosure of the limitations recited in applicant's claims 13, 23 and 24, the rejection is improper and should be withdrawn.

As to applicant's claims 15, 16, 19, 20 and 22, the Examiner makes the general statement that the method disclosed in Williams includes the steps of making diagnostic measurement of the patient's eye prior to inflicting the surgical trauma, and following the wavefront information to develop the treatment. Applicant submits that nothing in the non-specific reference by the Examiner discloses *developing a treatment for correcting the higher order aberrations of the patient's eye based on diagnostic wavefront information subsequent to the eye trauma associated with a particular refractive procedure*. The rejection is improper and should be withdrawn.

Finally, the Examiner points to the disclosure at column 9, lines 34-55 as teaching the development of an ablation profile that is adjustable with respect to a prospective ablation, as

set forth in claims 17 and 18 by applicant. The cited disclosure only provides a variation of Munnerlyn's equation for determining a desired ablation depth at a particular radius from the optical axis for a particular optical zone requiring correction. There is no disclosure that any *variation of treatment from a prospective treatment is made in response to a biodynamical effect caused by trauma to the eye associated with a particular type of refractive surgery.* Williams lacks even the inference of such a teaching, without which the rejection is improper and should be withdrawn.

IV. Allowable Subject Matter

Applicant gratefully acknowledges the Examiner's willingness to allow claims 26, 28 and 30 if these claims are rewritten in independent form including all of the limitations of the base claim and any intervening claims from which they depend. Applicant respectfully defers from amending the application at this time but reserves the right to so amend the claims at a later date.

V. Conclusion

In view of the foregoing arguments, applicant respectfully requests the Examiner to withdraw the stated claim rejections and allow the claims to issue as a patent. Applicant invites the Examiner to direct any questions or comments to William Greener at (607) 330-4012.

Applicant believes that no extension of time is necessary to make this Response timely. Should applicant be in error, applicant respectfully requests that the Office grant such time extension pursuant to 37 C.F.R. §1.136(a) as necessary to make this Response timely, and hereby authorizes the Office to charge any necessary fee or surcharge with respect to said

time extension to the deposit account of the undersigned firm of attorneys, Deposit Account
50-1546.

Respectfully submitted,

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